

New Genera and Species of Dolichopodidæ.

BY J. M. ALDRICH.

Dactylomyia.

New genus (Gr. *daktulos*, finger, toe; *muia*, fly).

Face narrow, slightly wider above and below, a transverse suture sets off the lower third from the upper portion. The antennæ are inserted high up, making the front exceedingly short. Antennæ small, very short, the three joints crowded together; third joint oval with apical or subapical arista; first joint bare above. Occiput convex, the cilia of the inferior orbit becoming scattered and irregular near the mouth. Acrostichal bristles in two rows; a sub-quadrate, slightly impressed spot before the scutellum, the latter with but two bristles. Abdomen short, and strongly arched downward, only partially metallic in color. Hypopygium large but short, bent forward under the venter; it has no lamellæ or projecting parts but is a globose structure with a wide opening anteriorly. Fore coxæ very long. All the legs exceedingly long and slender, the tibiæ longer than the femora, and the tarsi longer than the tibiæ. Hind metatarsi not shortened. Wings slender, not narrowed basally, the cross-vein nearly in the center, oblique, distant twice its length from the margin (on the fifth vein); the third and fourth veins gradually converge beyond this point and end near together, the fourth decidedly before the apex; just before the end they are nearly parallel.

This genus has the longest legs of any in the family, that I have ever seen. The hind leg is a trifle over twice the length of the whole body, and the others scarcely less. The wing venation reminds of *Medeterus*, and the habits are the same, both being found on the bark of trees; but the legs, face, hypopygium, etc., are different.

Dactylomyia gracilipes, n. sp.

Male. Face long and narrow, slightly wider above and below, silvery white pollinose. Palpi and proboscis yellow. Front covered with grey pollen. Antennæ yellow, tip of third joint slightly brownish; arista subapical or very nearly apical. Cilia of inferior orbit white. Dorsum of thorax green with thick brownish-grey dust; the posterior impressed area bluish. Pleuræ green with white dust. Halteres and cilia of tegulæ pale yellow. Posterior margin of the pleuræ pale yellow. Abdomen shining blue-green, the anterior edges

of the segments, particularly the second, more or less yellow, usually showing this color only along the sides. Venter yellow. Sixth segment and hypopygium wholly yellow. Coxæ yellow, the anterior ones, very long, with a thin row of pale hairs in front; the intermediate ones brownish at the extreme base; posterior ones with a single dark bristle on the outer side. Legs and feet wholly yellow; the front tibiæ slightly longer than their femora, the first two joints of the fore tarsi are elongate and slender, together longer than the tibia; the remaining three joints very short, subequal. Middle and hind legs and feet simple, but exceedingly slender. Wings hyaline with yellow veins, sixth vein almost obsolete.

Female. Face scarcely wider; antennæ a very little shorter; fore feet fully as long as in the male, but the joints successively shorter, as usual. In both sexes the middle metatarsus is longer than the tibia.

Length, 2.5-2.8 mm.: of wing, 3 mm.

Numerous males and females. Brookings, South Dakota. Common in July on the trunks of trees. I collected it on willow, cottonwood, and box elder. A single male from Florida, sent me by C. W. Johnson, does not seem to be specifically distinct.

Metapelastoneurus.

New genus.

Male. Face wide, convex below; antennæ short, the third joint rounded, with a dorsal, plumose arista; fourth vein of the wing bent forward near its tip, ending but a little distance behind the third; hypopygium exerted, about as long as the fifth abdominal segment, bent forward under the venter; at its tip prolonged into four filaments which reach the posterior coxæ.

The only essential difference between this genus and *Pelastoneurus* is in the structure of the hypopygium. The basal segment of the organ in a typical *Pelastoneurus* (*vagans*) is long and slender, and the central portion is also somewhat slender. Besides the small hook-like processes at the tip,—the true grasping organs—the hypopygium also bears two narrow fringed lamellæ, arising from the tip at the edge which would be called dorsal were the organ extended behind the abdomen. These lamellæ are homologous with those which are so conspicuous in the genus *Dolichopus*.

In *Metapelastoneurus*, the hypopygium differs from that just described in being very short and compact in structure. The basal segment is embedded in the abdomen, instead of forming a peduncle. The central portion is thicker and a third shorter than that just described. The lamellæ, however, are most modified of all the parts,

each being divided close to the base into two long filaments. The dorsal (as above) one of these is somewhat more heavily fringed and a trifle longer than the other, and bears near the base on the ventral side a slight protuberance, surmounted by a tuft of hairs.

Metapelastoneurus Kansensis, n. sp.

Male. Palpi yellow, face silvery white, front violet bronze, cilia of inferior orbit black. Antennæ yellow, third joint brownish at tip; arista with fine, sparse hairs. Dorsum of thorax shining green, with bronze and somewhat violet reflections; a silver spot in the ante-alar groove, below a bronze stripe. Pleuræ silvery pollinose, over a green ground-color. Cilia of tegulæ dark, halteres yellow. Abdomen shining green, the sutures bronze, and the sides somewhat white pollinose. Hypopygium blackish, the slender filaments brownish, fringed with delicate yellowish hairs, longer toward the tip. Legs yellow, plain, the middle and hind coxæ blackish except at tip; middle and hind tarsi somewhat infuscated toward the tip. Wings distinctly infuscated, venation the same as in the common *Pelastoneurus vagans* Loew.

Length, 3.5 mm.; of wing, 2.6 mm.

New Males, Western Kansas, (University of Kansas collection).

TABLE OF SPECIES OF SYMPYCUS.

- | | | |
|----|--|------------------------------|
| 1. | Fourth longitudinal vein ending before the tip of the wing,..... | <i>tertianus</i> , Loew. |
| | Fourth longitudinal vein ending at the tip..... | 2 |
| 2. | Antennæ entirely black,..... | <i>frontalis</i> , Loew. |
| | Antennæ pale at base..... | 3 |
| 3. | Thorax with longitudinal lines..... | <i>lineatus</i> , Loew. |
| | Thorax without longitudinal lines..... | 4 |
| 4. | Arista of male with a small lamella at tip..... | <i>nodatus</i> , Loew. |
| 5. | Arista of male plain..... | <i>occidentalis</i> , n. sp. |

Sympycus occidentalis, n. sp.

MALE. Head rounded, the eyes contiguous or apparently so on the face, palpi yellow, minute; antennæ inserted very high up (as in all the genus), making the face long and the front short. The front is slightly excavated, covered with grey pollen. First joint of antenna long and slender, brownish-yellow; second joint brown, short, extending in a roundish projection along the inner side of the following joint; third joint as long as the first, oblique in shape, the upper and lower edges parallel, and the tip almost squarely truncate; on its inner side the lobe of the second joint reaches nearly to the middle; the

arista arises from about the middle of the upper edge, and is scarcely longer than the three joints taken together. Cilia of the inferior orbit pale. Thorax short and rounded, brownish black, not shining, with stout black bristles above, cilia of the tegular pale. Dorsum and pleurae grey pollinose. Halteres yellow. Abdomen slender, clavate, the first segment brownish, the second yellow, the third reddish brown, the following ones passing into black. Hypopygium black, but little protruding, the sides of the first abdominal segment have a few widely divergent yellow hairs. Coxae yellow, the middle ones brown at base, the leaf-like upper extension of the hind ones (metathoracic epimera, Loew, Monogr. Dolich., p. 96) also yellow. Legs and feet yellow, the latter only a little darker toward the tip (hind feet missing), the fore tarsi are longer than their tibiae; the first joint comprises nearly half the length, and has on the lower surface near the base two or three noticeable hairs; the second joint one-third as long, thickened; the following joints slender, short, of equal length. The middle tarsus is plain, slender, once and a half as long as its tibia. Hind femora and tibiae plain. Wings yellowish, very broadly rounded at the tip, and narrowed towards the base; the third and fourth veins beyond the cross-vein are parallel, then the latter gently approaches the former, then they continue parallel to the end.

FEMALE. Face rather wide, wholly grey dusted; antennae inserted as in the male, the first joint lengthened a little less, and the third joint smaller, rounded. Abdomen wholly yellow, verging somewhat into brown. Legs plain. Wings not broadened at tip nor narrowed basally.

Length, 3-3.5 mm.; of wing, 2.5-3 mm.

Two specimens—male and female—Wyoming (University of Kansas collections.)

Additions to my Revision of *Hygrocelenthus* and *Dolichopus*,

(in the *K. U. Quarterly* for July, 1893.)

***Hygrocelenthus idahoensis*, n. sp.**

MALE. Face moderately wide, snow-white pollinose; palpi yellow; front shining green. Antennae black, not larger than in an average *Dolichopus*, but the first joint with a swollen yellow protuberance on the inner side; the second joint also slightly yellow on the inner side; arista rather stout. Cilia of inferior orbit snow-white, flattened, conspicuous. Dorsum of thorax shining bluish-green, the dark stripe above the root of the wing almost wholly absent; pleurae green, with thin dust; cilia of tegulae pale, not large. Abdomen bright blue-green, with rather stout bristles along the posterior margins of the

segments; no yellow hairs on the sides. Hypopygium green at base, black distally; the lamellae are small, white, rounded, with a rather wide margin of black along the apex, where there are the usual curved bristles. Fore coxae yellow, on the outer posterior part a greenish-black stripe; on the anterior side with silvery dust and a few dark hairs along the lower part. Middle and hind coxae black, the former with yellow tips. Hind trochanters black, the middle ones with a black spot. Femora and tibiae yellow, all the tarsi infuscated from the tip of the first joint; fore tarsi simple, about as long as the tibiae; the preapical bristle of the hind femur is the last and largest of a series of bristles, beginning near the base of the femur.

Wings hyaline, the anterior part a little yellowish, and the cross-vein slightly clouded. The shape is broad, with an incision at the tip of the fifth vein. The fourth vein ends before the apex; it has a moderately strong curvature. Costa with a long, strong swelling near the tip of the first vein.

FEMALE. Face broad, greyish-white; antennae as in the male; cilia of tegulae larger than in the male, black, with a slight admixture of pale. Wings narrower, less yellow anteriorly, costa not thickened.

Length, 5.2 mm.; of wing, 4.8 mm.

About 75 specimens, both sexes.

Common at Moscow, Idaho, in September, at the edge of streams.

I have deposited a set of types in the University of Kansas collection.

In both sexes this species is distinguished from *crenatus*, O. S., by having plain, short antennae. The male differs from *afflictus*, O. S., in lacking the yellow fringes on the abdomen, while the female of the former has a rather less abrupt curve in the fourth vein, but is very much the same in other respects.

***Hygroceleuthus latipes*, Loew.**

I found this specimen very abundant at Lake Mills, Wisconsin, in August, on the bare mud adjoining water. In some places they seemed almost to cover the surface.

***Hygroceleuthus crenatus*, Osten Sacken.**

Abundant at Moscow, Idaho, in September, along the edge of water. The specimen of which I figured the antenna in my previous article is not far from typical, although I there referred to it as a variety.

***Dolichopus tenuipes*, n. sp.**

MALE. Face rather narrow, yellow pollinose, below more grey; palpi yellow; front green, with yellow dust; antennae moderately

long, the first two joints yellow, the third brownish or blackish. Cilia of inferior orbit pale. Thorax green, thickly dusted with yellow, not very bright. Above the root of the wing but little brown. Pleurae blackish-green, rather thinly dusted. Cilia of the tegulae black. Abdomen green, before the incisures more coppery, on the sides white pruinose. Hypopygium green basally the remainder black, the lamellae white, ovate, the apex with an ill defined black area, the apical bristles far less strong than in most of the species. Coxae yellow, the hind and middle ones considerably blackened at base; the anterior side of the fore coxae is thinly silvery pollinose, the dark hairs very minute except near the apex. The first joint of the fore tarsi is yellow, slender, not very long; the second joint is longer, exceedingly thin and flattened, bare above and below, the edges however with small hairs; the third joint is like the second in structure, as long as the first; fourth joint very small and short; fifth black, compressed, oval in outline, nearly as long as the third, the claws however, are attached near the base, so the greater part of the length is a disc-like elongation beyond the claws. Beyond the first joint the color is dark. The total length is twice that of the tibia. Middle and hind tarsi each once and a half the length of its tibia, pale at base. Wings long and rather narrow, costa scarcely thickened, veins yellowish.

FEMALE. Face broad, greyish-yellow pollinose; third joint of antennae reddish-brown or brownish, the tarsi simple, about one and a third times as long as their respective tibiae.

Length, 5.2 mm.; of wing, 4.7 mm.

Moscow, Idaho; nineteen males and fourteen females. Common at the edge of water in September. I have deposited a set of types in the University of Kansas collection.

I have recently sent to the *American Naturalist* an account of the courtship which occurred in the two preceding species.

This *Dolichopus* differs from all the known species in the construction of the fore tarsi in the male; with *grandis* Ald. it shares the distinction of being the only species with the second joint of the male fore tarsi longer than the first.

Dolichopus setifer, Loew.

Four males, five females, Lake Mills, Wisconsin, August. The black spot in the tip of the wing of the male is an easy distinguishing mark of this species. Collected at edge of water,

Dolichopus ovatus, Loew.

Numerous specimens, collected with the preceding.

Dolichopus duplicatus, Aldrich.Kansas University *Quarterly*, July, 1893, p. 18

Nine males, five females, Moscow, Idaho, at edge of water in September. The females are not distinguishable, except by a slightly larger size, from those of *tenuipes* Ald. The male lamellae, which I could not well make out in the type, are very peculiar. The apical lobe is incised all along its outer border so as to have a sort of fringe of a dozen or more narrow divisions, upon the tips of which are delicate hairs. The strong curved bristles are entirely absent.

Dolichopus ramifer, Loew.

One male, Moscow, Idaho, September.

ERRATA: P. 153 midway, for New Males, read Two Males; p. 154 in sub-titles, for Hygroceleuthus, read Hygroceleuthus.